APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,499	03/26/2004	Masayuki Tsuda	9683/179	8154

27879   7590   06/19/2007
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EXAMINER
SAMS, MATTHEW C

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
06/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/810,499	TSUDA ET AL.
	Examiner	Art Unit	
	Matthew C. Sams	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>2/9/2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>5-9 and 12-29</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>5-9 and 12-29</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/25/2007 has been entered.

2.   Preliminary amendment filed on 2/9/2007 has been entered.

Response to Amendment

3.   The rejection to claim 8 under 35 U.S.C. 101 has been withdrawn.

4.   Claim 29 has been added and claims 10 & 11 are canceled.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 5, 7 & 8 are rejected under 35 U.S.C. 102(e) as being anticipated by

Saito (US-6,658,247).

Regarding claim 5, Saito teaches a terminal device (Fig. 1), comprising:

processing means for detecting one of a predetermined set of events that cause

operation of an application program to suspend (Col. 2 lines 10-14 & Col. 7 lines 15-18),

the processing means operable to generate event data representative of a cause of the

suspension of the application program; (Col. 5 lines 48-54 *i.e.* "load counter N is stored

in a memory or a register of the controller 1" & "control channel is switched to the call

channel")

the processing means further operable to suspend operation of an application

program when an event is detected; (Col. 2 lines 10-14 & Col. 7 lines 15-18) and

storage means for storing the event data generated by the processing means;

(Col. 5 lines 48-54 *i.e.* "load counter N is stored in a memory or a register of the

controller 1") wherein the processing means is further operable to resume operation of

the application program suspended by the processing means; (Col. 6 lines 1-13) and

the processing means is further operable to deliver the stored event data to the

resumed application program to adjust further operation of the resumed application

program to be responsive to the cause of the suspension. (Col. 7 lines 15-26 *i.e.* "when

the downloading operation for the music data is resumed, the music data can be

downloaded from the next data block")

Regarding claim 7, Saito teaches the processing means is operable to suspend

operation of the application program when the communicating means receives a

message designating a user of the terminal device. (Fig. 2B [S23 & S25] & Fig. 2A [S4])

Regarding claim 8, the limitations of claim 8 are rejected as being the same reason set forth above in claim 5.

Claim Rejections - 35 USC § 103

7.   Claims 6, 9, 12-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito in view of Kurokawa et al. (US-7,016,706 hereinafter, Kurokawa).

Regarding claim 6, Saito teaches the limitations of claim 5 above, but differs from the claimed invention by not explicitly reciting the storage means is operable to store sets of event data each representing an event between the time period from the time of suspension of operation of the application program by the processing means and the time that operation of the application program is resumed by the processing means.

In an analogous art, Kurokawa teaches a mobile radio terminal that includes a storage means is operable to store sets of event data each representing an event between the time period from the time of suspension of operation of the application program by the processing means and saves the time that operation of the application program is resumed by the processing means. (Col. 13 lines 10-24 and Fig. 6) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the terminal device of Saito after modifying it to incorporate the event history of Kurokawa. One of ordinary skill in the art would have been motivated to do

this since it makes for convenient multi-tasking on a mobile terminal device. (Col. 1 line 33 through Col. 2 line 19)

Regarding claim 9, Saito teaches a terminal device (Fig. 1) comprising:

a memory; (Fig. 1 [15])

instructions stored in the memory to detect receipt of a first predetermined event; (Fig. 2A [S2, S3 & S7])

instructions stored in the memory to suspend operation of an application that is currently being executed; (Fig. 2B [S23 & S25], Col. 2 lines 10-14 & Col. 7 lines 15-18)

instructions stored in the memory to store event data related to suspension of the application; (Col. 5 lines 48-54 *i.e.* "load counter N is stored in a memory or a register of the controller 1" & "control channel is switched to the call channel")

instructions stored in the memory to initiate resumption of execution of the application in response to a second predetermined event; (Fig. 2A-2B [S6, S1, S2, S3 & S7-S19])

instructions stored in the memory to extract the stored event data; (Fig. 2A [S12]) and

instructions stored in the memory to resume execution of the application, in accordance with the extracted event data, to be indicative of the first predetermined event. (Fig. 2A-2B [S10-S19])

Saito differs from the claimed invention by not explicitly reciting instructions stored in the memory to generate a message with the resumed application that notifies a user of the first predetermined event.

In an analogous art, Kurokawa teaches instructions stored in the memory to generate a message (Fig. 7 [706]) with the resumed application (Fig. 7 [703]) that notifies a user of the first predetermined event. (Fig. 7 [706] *i.e.* Display End of Call and Col. 13 lines 6-9) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the terminal device of Saito after modifying it to incorporate the message display of Kurokawa. One of ordinary skill in the art would have been motivated to do this since it can show the user a summary of the program interruption. (*i.e.* call time (Col. 12 lines 58-67)

Regarding claim 12, Saito in view of Kurokawa teaches the instructions stored in the memory to generate a message comprises instructions stored in memory to generate a query to a user that is related to the first predetermined event. (Kurokawa Fig. 7 [704]) & [708])

Regarding claim 13, Saito in view of Kurokawa teaches instructions stored in memory to generate a query to a user to launch another application to attend to the first predetermined event. (Kurokawa Fig. 6 [6d & 6h])

Regarding claim 14, Saito in view of Kurokawa teaches the message comprises an audio message. (Kurokawa Fig. 5 [121])

Regarding claim 15, Saito in view of Kurokawa teaches the message comprises a text message. (Kurokawa Fig. 8 & Fig. 9)

Regarding claim 16, Saito in view of Kurokawa teaches the first predetermined event comprises receipt by the terminal device of an email or a call request. (Kurokawa Fig. 8 & Fig. 9)

Regarding claim 17, Saito in view of Kurokawa teaches the first predetermined event comprises receipt or transmission by the terminal device of data via a short range transmission. (Kurokawa Col. 15 lines 26-31 *i.e.* PDA communicating with a mobile radio terminal or communication card)

Regarding claim 18, Saito in view of Kurokawa teaches the first predetermined event comprises execution of another application by the application. (Saito Fig. 2A [S2] and Kurokawa Fig. 6)

Regarding claim 19, Saito in view of Kurokawa teaches instructions stored in the memory to store event data for events that occur while the application is suspended, and instructions stored in the memory to provide notification of the events that occur while the application is suspended, when execution of the application is resumed. (Kurokawa Col. 13 lines 10-24, Fig. 6 & Fig. 7 [708])

Regarding claim 20, Saito in view of Kurokawa teaches the second predetermined event comprises a user command. (Kurokawa Fig. 8 [83 & 84])

Regarding claim 21, Saito in view of Kurokawa obviously teaches the second predetermined event comprises expiration of a determined time period since the notification of an incoming call only occurs for a specified period before the call is directed to a voicemail service.

Regarding claim 22, Saito in view of Kurokawa teaches the second predetermined event comprises completion of the first predetermined event. (Kurokawa Col. 8 lines 18-21)

Regarding claim 23, Saito in view of Kurokawa teaches the instructions stored in memory to suspend the application comprises instructions stored in the memory to, during the suspension, maintain application related data in volatile memory that was input by a user prior to the suspension. (Saito Fig. 2A [S9] & Kurokawa Col. 4 lines 44-65)

Regarding claim 24, Saito in view of Kurokawa teaches instructions stored in memory to maintain the suspended applicatioin in volatile memory during the suspension. (Saito Col. 5 lines 49-52 and Kurokawa Col. 4 lines 44-65)

Regarding claim 25, Saito in view of Kurokawa obviously teaches instructions stored in memory to set an event flag indicative of the first predetermined event. (Saito Saito Col. 4 line 52 through Col. 5 line 59 & Kurokawa Col. 13 lines 10-15) The setting and erasing of flags, registers & counters in computer systems are well known in the art and would be considered a design choice as to how the programmer decides to implement the specific notification within the computer memory.

Regarding claim 26, Saito in view of Kurokawa teaches instructions stored in memory to store an indicator of the first predetermined event and an identifier of the suspended application in a table. (Kurokawa Col. 13 lines 10-15)

Regarding claim 27, Saito in view of Kurokawa teaches instructions stored in memory to store the application in volatile memory when the application is launched, and instructions stored in memory to suspend the application comprises instructions stored in memory to maintain the application in the volatile memory until execution is resumed. (Saito Col. 4 line 52 through Col. 5 line 59 & Kurokawa Col. 4 lines 44-65)

Regarding claim 28, Saito in view of Kurokawa teaches the instructions stored in the memory to delete the stored event data when execution of the application is resumed. (Saito Col. 4 line 52 through Col. 5 line 59 *i.e.* counters are constantly written over during the download process and then reset when finished)

Regarding claim 29, Saito in view of Kurokawa teaches a display means for displaying information to a user, the display means operable to display a message related to the cause of the suspension, the resumed application program operable to generate the message in response to receipt of the delivered stored event data. (Kurokawa Fig. 7 [706] *i.e.* Display End of Call and Col. 13 lines 6-9)

Response to Arguments

8.   Applicant's arguments with respect to claims 5-29 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Sams whose telephone number is (571)272-8099. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MCS
6/8/2007

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